

# Zipkin

 2 minute read    page test

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After completing this task, you understand how to have your application participate in tracing with Zipkin, regardless of the language, framework, or platform you use to build your application.

This task uses the `Bookinfo` sample as the example application.

To learn how Istio handles tracing, visit this task's overview.

## Before you begin

1. Follow the Zipkin installation documentation to deploy Zipkin into your cluster.
2. When you enable tracing, you can set the sampling rate that Istio uses for tracing. Use the `meshConfig.defaultConfig.tracing.sampling` option during installation to set the sampling rate. The

default sampling rate is 1%.

3. Deploy the `Bookinfo` sample application.

## Accessing the dashboard

`Remotely Accessing Telemetry Addons` details how to configure access to the Istio addons through a gateway.

For testing (and temporary access), you may also use port-forwarding. Use the following, assuming you've

deployed Zipkin to the `istio-system` namespace:

```
$ istioctl dashboard zipkin
```

# Generating traces using the Bookinfo sample

1. When the Bookinfo application is up and running, access `http://$GATEWAY_URL/productpage` one or more times to generate trace information.

To see trace data, you must send requests to your service. The number of requests depends on Istio's sampling rate. You set this rate when you install Istio. The default sampling rate is 1%. You need to send at least 100 requests before the first trace is visible. To send a 100 requests to the `productpage` service, use the following command:

```
$ for i in $(seq 1 100); do curl -s -o /dev/null "http://$GATEWAY_URL/productpage"; done
```

2. From the search panel, click on the plus sign. Select `serviceName` from the first drop-down list, `productpage.default` from second drop-down, and

then click the search icon:



The screenshot shows the 'Discover' section of a tracing dashboard. A search bar contains 'serviceName: productpage.default'. Below the search bar, a table displays one result. The table has columns for ROOT, TRACE ID, START TIME, and DURATION. The single result row shows 'ISTIO-INGRESSGATEWAY' as the root, a long alphanumeric trace ID, a start time of '08/11 12:34:29.28T', and a duration of '55.24ms'. At the bottom, a breadcrumb trail shows the sequence of services: ISTIO-INGRESSGATEWAY (1), PRODUCTPAGE.DEFAULT (3), DETAILS.DEFAULT (1), REVIEWS.DEFAULT (2), and RATINGS.DEFAULT (1).

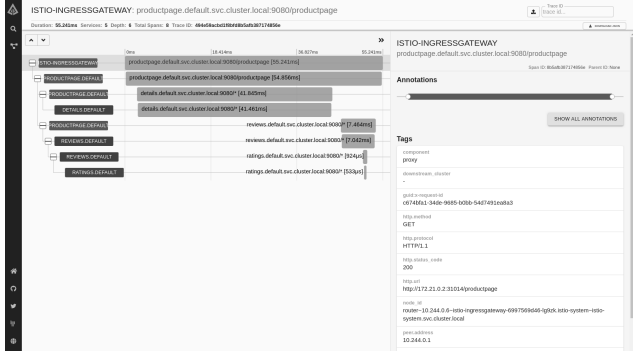
ROOT	TRACE ID	START TIME	DURATION
ISTIO-INGRESSGATEWAY	(productpage.default,sec.cluster.local:3000)~494e59edc2@baf08b5e7b387174855e	08/11 12:34:29.28T (3 minutes ago)	55.24ms

1 Result

ISTIO-INGRESSGATEWAY (1) PRODUCTPAGE.DEFAULT (3) DETAILS.DEFAULT (1) REVIEWS.DEFAULT (2) RATINGS.DEFAULT (1)

## Tracing Dashboard

- Click on the `ISTIO-INGRESSGATEWAY` search result to see the details corresponding to the latest request to `/productpage`:



## Detailed Trace View

4. The trace is comprised of a set of spans, where

each span corresponds to a Bookinfo service, invoked during the execution of a `/productpage` request, or internal Istio component, for example: `istio-ingressgateway`.

## Cleanup

1. Remove any `istioctl` processes that may still be running using control-C or:

```
$ killall istioctl
```



2. If you are not planning to explore any follow-on tasks, refer to the `Bookinfo cleanup` instructions to shutdown the application.